

California GARDEN

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Soon the Desert Will Bloom

**MARCH
1939**

Flower Arrangement
Classes

Marscella Darling

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Our Native Cacti
Mrs. Ethel Bailey Higgins

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Trowels vs. Test
Tubes

Tom McMullen



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*Mr. McLean is Vice President of
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Flower Arrangement Classes . . .

By MARSCILLA DARLING

The San Diego Floral Association has added a cultural feature to San Diego and the suburban towns in bringing two flower arrangement artists, Mr. Norman Edwards and Mr. William Allen of Los Angeles, who are presenting a course of four lessons.

The first of the series of classes was held in the Floral Association Building in Balboa Park on Saturday, February 18.

The arranging of flowers is making pictures with flowers instead of making pictures with artificial media and is just as much an art as is the art of painting.

Mr. Edwards and Mr. Allen approached their subject by introducing the fundamentals; containers and the stabilizers to be used in them. Vases and other forms used should always be subservient to the arrangement and should be preferably of white or neutral tints or dark green or brown. In shape, the pillow type, the round, the rectangular, the oval, the flat rectangular and oval forms lend themselves best to any arrangement. The surfaces of the containers should be plain and unadorned.

The stabilizers or flower holders may be of the needle type, which holds equally well the soft and the woody stems. If the latter, it is best to split up the end crosswise twice. Rat wire, quarter inch mesh may be cut the proper width and

rolled to fit the container and placed to within an inch of the top of the container. When using needle point holders, attach them firmly to the bottom of the container with plasticine, having the surface of the holder and that of the container dry.

These were a few of the suggestions for foundations that were helpful. Each lesson will take up something new.

When the instructors demonstrated their arrangements, not one leaf or flower was placed without regard to its value to the whole composition. The curve of a leaf, its width, its color, its directional slant, its surface texture, were all considered in their relation to the whole. A poignant thought was that the arrangement should be finished all around, so one can see through it on all sides. Vacant spaces are important, but the contour should be perfect with no front or back, or else the result is not harmonious.

In all arrangements keep either the flowers or the leaves predominant, as the principle of subordination is important in all art. Do not hesitate to use two or three varieties of greenery if it suits your purpose.

Three other lessons in the series will be given on the following dates: Saturday, March 4; Saturday, March 18; Saturday, April 1, from ten to twelve o'clock in the Floral Association Building.

Pests

Ida E. McLean

There's a pest for every growing thing.

Or, it seems that way, at least; And whether they bite or chew or sting;

On the choicest plants they feast.

Snails get the tenderest shoots of green;

(Quite their preference, you'll agree.)

For, they're strong on every vitamin;

Whether A — B — C or D!

The plant lice (or aphid) black or green,

And their countless progeny; With voracious appetites, and keen. Imbibe juice impartially!

Caterpillars, thrips, and mealy bugs, Take their toll of things that grow:

Red spiders, cut-worms, and lowly slugs,

Work above ground or below.

So many are the pesky things

Eating plants by day and night; Crawlers, creepers, and those with wings, Continually, we must fight!

The boll-weevil gets the cotton,

The moths get the best fur coat; And with other things they've gotten,

They, at last, have got our goat!

Our Native Cacti . . .

By ETHEL BAILEY HIGGINS

Mr. Thos. F. McMullen,
Editor, California Garden,
6063 Neptune Place,
La Jolla, Calif.

Dear Mr. McMullen:

I enclose herewith a MS prepared at my request by Mrs. Ethel Bailey Higgins, author of "Our Native Cacti" and now a member of our staff here at the Natural History Museum. This deals with the cacti of San Diego County and is to be followed by a paper on the other succulents of the county.

I thought you would probably be glad to use these in your magazine.

Very truly yours,
Frank F. Gander
Curator of Botany

Our Own Cacti

Glancing through an eastern catalogue I saw *Mamillaria dioica* listed as "rare"; of course, therefore, desirable. If we would follow the advice given to begin a collection with a few plants and learn to know them well, should we not start with these rare cactus and succulent species which we have within the borders of San Diego County? Do not think that such a garden would lack in interest or variety, for of both cacti and other succulents we have ample material.

In the genus *Opuntia*, both the flat stemmed or prickly pear group and the cylindrical stemmed or chollas are well represented. The *cereus* tribe is represented by two genera, both interesting—*Ferocactus*, the barrel cacti, and *Marillaria*, the little so-called fishhook cacti, each with two species.

The *opuntias* are not always given the consideration in planning our gardens that they deserve. If space allows, some of them at least should be included. There are two *opuntias* which are not native but which have been so long with us that we consider them as our own. These are *O. megacantha*

Salm-Dyck, the so-called Mission cactus and *O. Ficus-Indica* L. Miller, the Indian Fig. These were brought to us by the Mission Fathers, who valued them for their fruits. If the arrangement of the garden so permits these should be placed in the back, or against a wall, as they are rapid growers, and rank growers as well. They would serve admirably as a background for the lower growing things, and we would be able to pluck a salad fruit from them now and then. They have been under cultivation so long that there is no record of their origin.

Others of our *platyopuntia* or prickly pear group that are desirable in cultivation are *O. chlorotica* E. & B., with blue green stems; *O. Vaseyi* (Coulter) B. & R., with its unusual color of ruby red in its flowers, and most surely *O. basilaris* E. & B. for its beauty. Its pads are gray green in color, flushed with pink, especially in the young joints. It spreads from the base, is low growing, and is a beautiful sight when in bloom, the silken magenta-pink blossoms edging the pads. This is called sometimes the beaver-tail cactus. It has no spines, but its numerous, barbed glochids give it ample protection. They have a way of their own, which results in the making of a miniature pincushion of the finger which inadvertently touches this cactus.

Of the cholla type there is quite a variety. *O. prolifera* Engelm., one of our common coast species is not, in spite of the unusual color of its flowers (a chocolate red), really a desirable one for the garden. It is prolific, that is from the fruit of one year springs the flower of the next—often long chains of the fruits are thus formed. These fruits are seldom fertile, and the plant depends for its propagation upon the falling joints which take root. Another species which is rather undesirable is the beautiful silver cholla, *O. Bigelovii* Engelm. This is a desert cactus, the so-called jump-

ing cactus. Of course it does not really so take the defensive, but its joints are so easily detached, that it appears to do so. It, too, roots when fallen. It however is undesirable from another point—lovely as it is in its youth, when the sun upon its silver spines make it a thing of beauty, in age it turns black at the base and is unsightly. But there are plenty of desirable ones remaining, so that we may have the *cylindropuntia* well represented. The coast has another, *O. serpentina* Engelm. which is most desirable. It branches horizontally, so that it may well find a place more in the foreground. *O. echinocarpa* is one of the smaller growing ones with yellow flowers tinged with red, as are the blossoms of *O. Parryi* Engelm., a larger growing and very fine plant.

A desert species, *O. ramosissima* (Engelm.), should by all means be included, it is so different in growth from the others. Its stems are small (it is sometimes called the pencil cactus) and marked with diamond shaped, almost flat tubercles, whence it has also had the name of *O. tessellata*. It is more difficult to propagate from cuttings than are the others for it has a hard woody stem and does not root readily.

The genus *Ferocactus* is represented by two species, *F. viridescens* (T. & G.) B. & R. and *F. acanthodes* (Lemaire) B. & R. The former is the coast species, and is found over all our hills, in stony or adobe soil. Its spines in early growth are ruby red, annulated. Later they become brown. These spines are like steel and will penetrate the stoutest leather sole, so it is well to watch one's step in the spring as often the plants are almost concealed in the herbage and grass. The flowers are silken, a greenish yellow tint, and fringed at the edge of the petals. The other or desert species, *F. acanthodes*, does not do well in cultivation. It is often seen in its native habitat uprooted, its crown a glory of color but decayed below and within.

Of the two representatives of the *cereus* tribe which we have, *Bergerocactus* stands by itself, a genus con-

(Continued on Page 8)

Garden Club Meetings . . .

At Rancho Santa Fe the February and March programs of the Garden Club have opened the annual Flower Show campaign in a new way which appears to be whetting interest to a fine edge.

At the February meeting the subject of Flower Show Judging was discussed, together with all the initial steps which lead up to that fateful hour of every exhibit. On display for the afternoon was a very fine set of 125 photographs obtained from the office of the National Council of State Garden Clubs in New York City. These were pictures taken at the International Flower Show of 1938, in New York and displayed many interesting ways of staging flower show exhibits.

Especially different from Southwestern shows was their method of displaying arrangement classes, and it was about 90 photographs, showing these bouquets in detail, which most interested Rancho Santa Fe Garden Club members. Placed about the room in such a way that these could be well-viewed and handled for inspection, it was easy to perceive new ideas taking root in many minds.

The March meeting at Rancho Santa Fe will be a program called: "Color in Flowers," repeating a former lesson on this subject ar-

ranged by the artist member of the club, Marion Macdonald. This time, however, her audience will include members of the various clubs in District No. 1 of the California Federation: Vista, Fallbrook, Carlsbad, Laguna Beach, and the new club at La Jolla which is expected to join the Federation. Flowers, to Mrs. Macdonald, mean COLOR, and her fine sense of shades and color tones reveals unexpected opportunity to those who love flower decoration. Special plans are also being made for the tea which will follow the program, as this is the first time that the new club house has been available for a District meeting.

April at Rancho Santa Fe will be given up to detailed preparation for the Flower Show on April 29th and 30th. With the Garden Center in perfect readiness this year, the members expect to make this event more interesting than ever before. New classes, new staging, are promised. And best of all, is the fact that the Floral Association exhibit, which takes place on the previous week-end, will leave San Diego flower lovers, those at least who cannot go north to the Federation meeting in San Francisco, free to visit the country exhibit announced by the Rancho Santa Fe Garden Club for April 29th and 30th.

Roadside Planting Praised

According to information received from the local office of the Cleveland National Forest, the erosion control, experimental planting and roadside beautification measures which are being taken by the County of San Diego along the new Palomar Mountain Road, have attracted special attention from the traveling public as well as from officials of the U. S. Forest Service.

Forest Supervisor A. P. Dean reports that this work is in keeping with practices approved by the U. S. Forest Service under similar conditions in other parts of the State.

The savings derived by the planting of vegetative cover to retard the runoff and resultant erosion along roadside fills is no longer a theory but a proven fact. The prevention of soil losses by this means on the Palomar road alone is estimated to have saved the County of San Diego many thousands of dollars.

Planting of natural or native shrubbery or trees is one method used to eliminate these scars and also offers an opportunity for roadside beautification.

Experimental planting of this nature is now being conducted along this "Highway to the Stars" with 1400 trees and plants donated to the County by the U. S. Forest Service and the California Forest and Range Experiment Station. This work is under the supervision of the County's Soil Conservationist, Department of Roads. It is the first project of its kind in San Diego County combining erosion control and roadside beautification, but the work has now progressed sufficiently to prove its value in preventing soil losses along the highways.

Officials in charge of this work are confident that any analysis of the ecological factors involved in the planting will give us the answer to the type of vegetation best suited and most economical for stabilizing the soil as well as for roadside beautification in this region. The answer to these questions will also be of paramount importance in future flood control measures.

National Orange Show . . . March 16-26

International acclaimed as the world's greatest citrus exposition, the twenty-ninth National Orange Show at San Bernardino will open March 16th for eleven days of gorgeous displays, exciting all star stage shows and hilarious fun.

"Golden California" is the theme for this year's event and the vast Orange Show auditorium will be cloaked in a lavish mantle of shimmering golden satin. More than 35,000 yards of glistening fabrics are being draped on the 5 acre interior as a complementary setting

for the 1,000,000 oranges, lemons, grapefruit, and tangerines that will take their bows before the hundreds of thousands of visitors at the Show.

A gorgeous flower show, fully five fold larger than last year's innovation, promises to be an attractive feature.

Entertainment will be done in the grand manner. An all stage show featuring popular headliners from screen and radio and name bands will be presented each afternoon and evening.

Aphids

By DR. E. D. ESSIG

There are several species of aphids that feed on the leaves of fuchsias and particularly on the new growth. The most important is the ornate aphid, *Myzus ornatus* Laing, a new introduction in this region. It may have been introduced on plants from Europe and is but a minute green species which does no particular harm to the plant by its feeding, but like many aphids, scale insects, and whiteflies, the insects produce quantities of honeydew which is deposited over the upper surface of the leaves. This sweet excrement is the food of the black smut fungus which thrives in our cool, damp coastal atmosphere and produces the black coating over the infested plants.

This difficulty can be overcome somewhat by thoroughly and frequently hosing the plants but a more effective cure consists in the application of sprays. The most satisfactory sprays for these particular insects are (1) nicotine and soap; (2) nicotine and light oil emulsions; (3) pyrethrum extracts; and (4) pyrethrum and light oil

emulsions. These combinations can be purchased ready made from éorists, nurserymen and hardware stores.

In connection with the above scientific expose, one might be pardoned to let the amateur say a few words. You will find the black smut fungus on the upperside of some leaves—now look on the underside of the leaves above the smutty ones and, lo, there are masses of very small green aphids which you had not seen nor suspected before. And they DO multiply. No use hoping for cold weather to curb them—better start right in killing them. Take a large paper bag, gently break off all the infested leaves (many of them are slightly discolored), drop them carefully in the bag and burn them. You now have eliminated millions but surely there are millions left and other millions will come from eggs. So you must get busy spraying and hosing for days in succession. After having tried several brands of spray, I believe to be justified recommending "PY-ROTE" as very effective.

Pacific House Book Talks

A display of several thousand books on the countries and peoples of the Pacific . . . and on their contributions to world civilization . . . is one of the principal features of Pacific House at the Golden Gate International Exposition.

Distinguished authors and bookmen have been invited to appear in a series of informal book conversations to be held in the conference room at Pacific House on Friday evening at 8:30 p. m. Each will introduce some particular aspect of the general theme to which Pacific House and the book exhibit are devoted. Admission to these meetings is free of charge.

Opening Series—February to April
February 24—Phillis Bentley, noted English novelist: "Fiction and International Relations".

March 3—Charles Caldwell Dobie: "Some of San Francisco's Personal Links With China".

March 10—Dane Coolidge and Mary Roberts Coolidge: "Our Indian Friends in Baja California".

March 17—Sydney B. Mitchell: "A California Gardner's Debt to the Pacific".

March 24—Victor Wolfgang von Hagen: "Galapagos . . . One Hundred Years After Darwin".

March 31—Quail Hawkins: "Children's Books on China and Japan".

April 7—Mrs. Fremont Olden: "Some Spanish Women in California's Past".

April 14—Gertrude Atherton: "Strange Worlds . . . Bound and Unbound".

Dahlias in Public Parks

To All Whom It May Concern:

The Berlet Dahlia Foundation, a philanthropic organization, sponsored by R. E. Berlet, Chicago, Illinois (the founder of the Central States Dahlia Society, under whose auspices an international dahlia exhibition was held at the Century of Progress-World's Fair in Chicago, in 1933 and 1934), is this year entering on a program of propaganda, which has for its object to induce park horticulturists throughout the world, to further the growing and showing of small-flowering dahlias (bedders and border dahlias) in public parks, and respectfully asks your hearty cooperation.

The Dahlia Foundation is calling upon all lovers of flowers, growers of dahlias, commercial or amateur, to inaugurate a movement to introduce dahlia flower beds in every community where space is available in parks or public places for the growing of flowers in beds or borders.

Much space is now given in public parks to the growing of geraniums, asters, heliotrope, chrysanthemums, and many other flowers, from seed or cutting, and there is no reason why the small-flowering dahlia, with its varied colors and types, and long flowering periods, should not have a place in public parks and public places. Surely, it cannot be said that park superintendents and horticulturists are disinclined to tackle the matter by reason of personal indolence, ignorance or indifference.

Large space in the public parks of The Hague, capital of the Netherlands, and the Zoological Gardens in Detroit, Michigan, U. S. A. is devoted to growing and showing dahlias. Why not in every city, town and hamlet in the world?

We would like to hear from people, amateur and commercial growers and managers, newspaper publishers, garden lovers, and any one interested in flowers, as to what they are willing to do to help popularize the dahlias in public parks and places.

Sincerely,

Berlet Dahlia Foundation

Trowels vs. Test Tubes . . .

By TOM McMULLEN

Keeping up with chemical science's contribution to the plant world is a task these days. We have been hearing a lot about tank farming, sand culture, root-forming chemicals, and other miracles of the chemist's test tubes. These plant doctors, trying to see what makes plants live, grow, and propagate, offer a new world for us dirt dabblers to contemplate.

We have long been familiar with the process of soaking seeds in chemical solutions to induce rapid germination but we now read of chemical treatment to form changes within the seed itself. The Carnegie Institute has been conducting experiments in which the seeds of certain plants have been treated with an alkaloid, colchicine, the resulting seedlings showing changes in somatic tissue through doubling of the chromosomes.

The booklet describing this method mentions that such doubling of chromosomes is about the only well established mechanism known among plants for the evolution of the species. We know this unbalancing of chromosomes, which has occurred accidentally from time to time in nature, has produced most of our fine varieties of fruit and flowers.

What then do these experiments hold in store for the plant lover? They have proved thus far that, in addition to increasing the size of the flower in some species, we might expect that doubling the chromosomes may change sterile hybrids to fertile ones, annuals to perennials, increase resistance to cold and drought, etc.

These changes also increase the size of the pollens, and who knows, we might some day have hay feverless grasses — grasses with heavy pollens? Your seedsman might someday advertise: "Try our new mixture of heavy pollen grasses. Not a sneeze in a bag full."

Cuttings Root Easily Now

In addition to experimenting with seeds, our plant researchers have

been finding out what are the growth substances that make roots form on cuttings and they are now producing these hormone-like chemicals in the laboratory. It is possible now to make practically all varieties of cuttings root after they have been soaked in the recommended solutions for designated periods.

Species which have here-to-fore been hard to root, root not only more quickly, but it is not necessary to make each cutting at the bud or node, as roots will form all along the portion that has been immersed. Invariably when I tell about the wonders of this chemical the question is, "Will it grow hair on a bald head?"

This new method, aside from its high percentage of successfully rooted cuttings, saves time because plants grown from treated cuttings go ahead faster than those from untreated ones.

The product is sold under a number of trade names: HORMODIN, AUXILIN, etc.

Turn the Children's Sand Box Into a Garden

Much has been written lately of another chemical achievement and, though the idea is not new, I believe the refinement of the process has at last put it in the hands of us average gardeners. I refer to chemical farming, also known as tank gardening, aqua culture, test tube growing, etc. As long ago as 1859 a German named Knop experimented with plants grown in chemical solutions.

Today the tremendous yields of potatoes and tomatoes and such crops produced under the direction of Professor F. W. Gericke, associate plant physiologist of the University of California, are well known to us in the west. I want to mention, however, one variation of this branch of horticulture developed in the east which appeals to me because of its practicability, the sand culture method.

Drs. W. R. Robbins and John W.

Shive of the New Jersey Agricultural Experiment Station have developed this science till it is almost fool-proof. Sterile sand is used in containers. This medium not only anchors the roots but aerates them as well. The major and trace elements supplied in solution.

House plants, cuttings, bulbs, all respond well to this treatment. Simple cultural directions come with your packets of chemicals. Garden Chemical Co., Livingston, N. J.

The only chemistry you need to know to follow these fascinating plant experiments is that H₂O means water. All I'm waiting for now is for someone to come forward with a combination aquarium, tank garden and foot bath and I'm practically ready to begin.

DISPLAY OF PAINTINGS AT EXPOSITION

Visitors will be given the privilege of viewing the Franciscan Fathers' collection of paintings of the California Missions when The Old Mission Trail on Mission Street is open during the World's Fair Premiere Festival according to word received today by the Mission Street Merchants' Association from Father Michael Egan of the Franciscan Fathers of California, Santa Barbara Province.

"The paintings," said Father Michael, "are authentic reproductions of the California Missions especially painted for the Franciscan Fathers to form an exhibit designed to interest popular support for the reconstruction and preservation of the early Missions. California Missions antedate and rival in historic value many landmarks of Europe. They should be preserved in their original beauty for the generations to come."

The Old Mission Trail is planned by the Mission District to return to Exposition year San Francisco the old romance and color of the Mission days of the Padres.

For ten blocks of Mission Street visitors will find the living, breathing, colorful life of a civilization that bloomed during the years that a new nation was being born east of the Alleghanies.

Problems of the Soil

By R. R. McLEAN, County Agricultural Commissioner

Question: The lawn on the north side of my house which is between the house and a six foot wall is rapidly dying. The grass first turns yellow and then leaves a bare spot. It also has a mildewed odor. The wall throws a shadow across the lawn constantly and a breeze strikes that area almost continuously. The soil is very sandy and water runs right through. What can I do to prevent the lawn from dying? Can the earth be sweetened? The lawn has been in ten months only.

(2) In the rear of the house where the soil has not been cultivated a weed is sunning wild. It is thick and bushy with numerous small thorns and has never ending roots. Could it be the so-called "devil grass" and how can it be exterminated?—Mrs. J.C.C.

Answer: From time to time many complaints have been received from your section concerning the difficulty of establishing new lawns. After the right grass, or combination of grasses, has been found and the necessary environment provided, with particular reference to putting the soil in good physical condition and maintaining its fertility, less trouble will be encountered. A sandy soil such as yours is not, however, easy to put into proper condition to grow and maintain a good lawn. First work into it quantities of organic materials such as strawy manures or peat moss and you will find it much more retentive of moisture. Bare patches sometimes result from the feeding of grubs and worms on the grass roots. The wrong type of grass planted on sandy soil in a shaded location would also result in the same condition. It is advised that you replant where necessary with a mixture of Cheving's fescue, *Poa trivialis* and Pacey's rye grass, equal parts, first working into the soil, if possible, some organic material. It is not easy to do this after the lawn has been established but finely shredded peat moss or pulverized

animal manures scattered over the surface will gradually work down into the soil. The grasses mentioned do very well in shady, sandy locations and can be obtained from local dealers in seeds and garden materials. If the soil is, in fact, sour, a little hydrated lime scattered over it and irrigated in will help to sweeten it. The soils in your area, however, are far more apt to be salty or alkaline than acid. You might test that for yourself by getting a little litmus paper at the drug store and using it as directed by the druggist.

(2) The grass or weed you refer to may or may not be Australian salt bush or it may be the ordinary salt grass, common in sandy soils along the coast. Devil grass is generally understood to be Bermuda grass which hardly fits the description you give of it. If you will send a small sample to the Agricultural Commissioner's office in the Court House on immediate identification will be made and instructions given as to its eradication.

Question: Can you tell me something about patenting fruits and plants, that is, if it is still possible to do this and how one goes about it? I have an avocado I am thinking of patenting, also a gladiolus.—Mrs. J. W.

Answer: Presumably the plant patenting laws are still in effect as no announcement has ever been made to the contrary, so far as known to the writer. According to information given out several years ago such a "patent gives 17 years exclusive right to propagate the new plant by asexual reproduction only, that is, grafting, budding, cuttings, layering, cell-division and the like, but not by seeds. Patent protection is extended to fruit and nut trees, berries, grapes, most ornamental trees and shrubs, many perennials, dahlias and gladioli." For full information concerning the method of patenting plants and

fruit it would be best to write directly to the U. S. Patent Office at Washington, D. C.

Question: Two years ago I bought some potted shrubs, among them some roses, and set them out in the garden. As they made no growth at all I took them up this winter and found that the roots were very much bunched and constricted and had not spread out at all. Was this due to improper planting and does it account for the plants not growing as they should?—O. R.

Answer: Plants often become "pot-bound" when kept in small pots or cans for a long period without re-potting to larger sized containers. In such cases the roots grow until they can move no further laterally and then must grow in a circle. The longer they are kept in these too-small containers the tighter the roots become bound. Plants severely pot-bound are practically worthless and never make satisfactory growth. Sometimes they can be saved by cutting away, during the dormant season, most if not all the old root system and inducing the development of a new one, but this is rarely entirely satisfactory. It is difficult of course to determine if plants in pots, cans or tubs are pot-bound without destroying the ball of earth surrounding the roots, but one can at least specify when buying potted plants that they have not been kept in containers long enough to allow such a condition to develop. Many plants can be kept in containers for a long period without becoming pot-bound while others, such as roses, quite easily develop this condition, particularly so if fertilized heavily.

The Garden

A kiss from the sun for a pardon,
A song from the birds for mirth.
You are nearer God's heart in a garden,
Than anywhere else on this earth.

Killing Epidemic Threatens London Plane, a "City" Tree

Most trees do not like cities—they do not live well with people. But in the United States there is at least one tree—the London Plane—that is not bothered by big city conditions. Therein lies its value. It has long been a favorite with the "city forester".

Now the London plane is threatened by a killing epidemic, report pathologists in the U. S. Department of Agriculture. More than 7,000 trees have died in Philadelphia and near-by Jersey. Baltimore has lost more than 700 trees. The disease also occurs in Washington, D. C.

First indications that the disease has attacked a tree are cankers in the bark of the trunk and large limbs and dark streaks in the young wood. Because the disease is a slow killer, infected trees may show no other symptoms the first year. The second year there is a gradual death of the tree that year or later. Department pathologists do not know how the disease is spread, but they believe they have detected the organism that causes it.

The London plane is a cross between the American sycamore and the European plane tree, and often is called sycamore in this country. In fact, because it does so well in cities, nurseries usually use it in filling orders for sycamores.

For this reason, and because the tree seems to thrive in almost any big city, any disease that threatens it may work a hardship on cities the country over, says R. Kent Beattie, pathologist in the Federal Bureau of Plant Industry.

Citizens can assist with information on the spread of the disease by writing to the Division of Forest Pathology, U.S.D.A., Washington, D. C., and also by sending chips of young wood with black streaks from London planes that appear to have the disease.

"Garden" Advertisers are reliable merchants and merit your support . . . patronize them.

Notes from the American Fuchsia Society

There is an unforeseen interruption in publishing lists of preferred varieties of fuchsias because we have recently become the fortunate possessors of the new "Horticultural Color Charts" to be used in future definition of colors. Every description will be based on the above chart and can be made only with the flower on hand—so wait we must.

Thanks and congratulations are due "The Fuchsia Society" of England for publishing their first "Fuchsia Annual"—a beautiful 45 page book with a great deal of interesting information. We hope to receive permission to quote some of the material—especially from the valuable article by Mr. A. D. Cotton.

NEW PORTABLE GARDEN EQUIPMENT READY FOR MARKET

A new invention of a portable sprinkling, spraying and fertilizing apparatus will be placed on the market in March by the Portable Garden Maintenance Equipment Company, whose headquarters are at 95 West Montana Street, Pasadena. The general object of the invention is to provide an improved method for evenly sprinkling fertilizer automatically, and the distribution of insecticides and disinfectants, as well as whitewash. It is known as "Old Faithful". By attaching to the domestic water supply and controlled elevation, it not only waters soil and washes tall shrubbery, but is an air cleanser and humidifier outside of the sun porch or sick room—resigned to be ornamental as well as practical.

This light portable garden equipment, mounted on balloon tires, will be seen in action at coming flower shows. It costs nothing to operate; works on hydraulic pressure, with economy of material and labor.

PESTS SURVIVE THE WINTER IN MODERN HEATED HOUSES

The even heating of modern homes keeps alive through the winter many insect household pests that once were frozen in chilly clothes closets and storage rooms. The Bureau of Entomology and Plant Quarantine says that clothes moths, carpet beetles, cockroaches, silverfish, and other species often thrive the year around in warm houses.

Frequent brushing, sunning, and airing of woolen clothing and furs during the winter will do much to save them from clothes moth and carpet beetle damage. Slightly oiled garments such as wool sweaters and socks are especially attractive to moths. Little-worn articles are best cleaned and packed away in moth-proof containers with naphthalene or paradichlorobenzene flakes. Scrupulous cleaning of all cracks and corners of closets and other storage places in ordinary use helps to keep them free of insects.

Cleanliness is also a protection against cockroaches. An immaculately clean kitchen and all food stored in the refrigerator or in insect-proof containers will discourage cockroaches.

The small, active, greyish, scale-covered insects known as silverfish thrive in damp, warm basements. They cause serious injury anywhere in the house, feeding upon paper and wall paper, book bindings, starchy or sweet food, and to some extent, on fabrics, particularly rayon, and on starched clothing or curtains.

They can be destroyed by a poison bait made of 100 parts of oatmeal, 8 parts of white arsenic, 5 parts of granulated sugar, 2½ parts of salt, and water to moisten. This bait must be kept away from children and pets. Another method of getting rid of silverfish is to sprinkle pyrethrum powder where they run, or spray with a mixture of kerosene or paradichlorobenzene dissolved in carbon tetrachloride.

— SPRING —
FLOWER SHOW
APRIL 22-23
— 1939 —

Our Native Cacti

(Continued from Page 2)

taining but one species, *B. Emoryi* (Engelm.) B. & R. It was first discovered by Emory, commander in the Border Survey, and was named in his honor. It is found along the coast and extends into Lower California. Its stem is horizontal, with erect branches, rising sometimes only a few inches and again to six or eight feet. It is densely covered with spines, long, slender, and of a peculiar yellowish green. Its buds appear along the sides of the branches like little mahogany colored buttons, later expanding into yellow rosettes. It is a most interesting plant, although perhaps not so beautiful as some of the others.

The other of the cereous tribe is quite a different one:

Echinocereus Engelmanni (Parry) Rumber. It is one of the low growing, so-called torch cacti. Its body color is a clear green, well hidden, however, by the spines which vary greatly in color. They are brown, yellow white, and very so much that dealers often call them by several varietal names. The blossoms are a magenta pink in color, set off by the green feathery stigma lobes, characteristic of the genus *Echinocereus*. The fruits are as beautiful as the blossoms. They are scarlet and covered with a beautiful ivory white fretwork. The fruits are edible.

The possible existence of another *Echinocereus* within our borders, just waiting to be discovered, lends a touch of pleasureable excitement to the whole matter. *Echinocereus maritima*, a similar species with yellow flowers, is known from Lower California, and its presence on this side of the border has been hinted, but no authentic collection has ever been made.

Of the mamillarias there are two, one common, even very abundant near the coast, and extending into Lower California. This is *Mamillaria dioica* K. Brandg. It varies so much in different localities that it has been claimed there are several varieties. My own experience however tends to disprove this. Near

the beach where it is often found in great abundance, the spines are dingy, and it is far from being the attractive plant that it is further from the ocean, where its spines are fresh, crisp looking, at the crown white tinged with pink. However this plant, so entirely different in appearance, when brought to the coast soon acquires the same dingy appearance as the coastal plants. So this seems to be entirely a matter of environment. Its blossoms have been maligned in published descriptions—a dirty white is the color given. In reality they are creamy white, each segment showing a midvein of red.

The flowers appear as a wreath around the crown of the plant, and often both flower and fruit are in evidence at the same time. The fruits are scarlet, and are sometimes called chiletoes or little chiles, from their resemblance in miniature to the chile pepper. They are edible, slightly acid. They are half embedded but are easily dislodged. However, it should be remembered that this is one of the many so-called fishhook cacti, because of the hooked spines.

The other mamillaria is now set aside in a separate genus, and is known as *Phellosperma tetrancistra* (Englm.) B&R. It is a desert species, small in size and with beautiful wine-colored blossoms.

From the quick growing opuntias, tall and branching, to the small mamillarias, there is sufficient gradation in size to permit of a good arrangement, and sufficient variety in appearance to render the garden full of interest. But if this is not enough, there are in our limits, other succulents sufficient to complete a garden which would challenge the admiration of the most critical cactus fan.

S. D. Floral Association
meeting held third Tuesday of
each month at Floral Bldg.,
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